

● ● ● BM FAN COIL UNIT

# INSTALLATION AND USER'S MANUAL



Before operating the unit,  
please read the manual carefully.  
Keep this manual well for future reference.



# Catalogue

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# 1. Introduction

## 1.1 General Information

Thank you for choosing our product. Please read this manual carefully before use and follow the instructions to operate the unit in order to prevent damages on the device or injuries to staff.

Specifications are subject to change with product improvements without prior notice. Please refer to the sticker on the unit for upgraded specifications.

## 1.2 Precautions



..... Warning



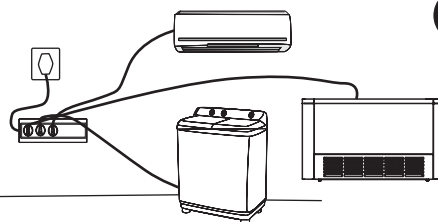
..... Prohibition



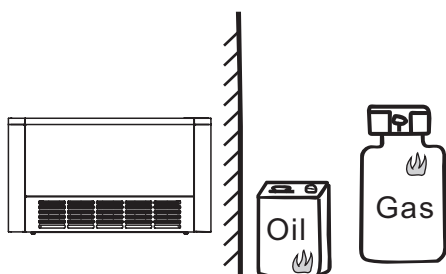
..... Caution



**Children should be supervised to ensure that they do not play with the appliance.**



**Use a dedicated socket for this unit, otherwise malfunction may occur.**

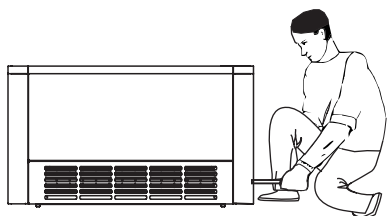


**Keep the unit away from the combustible or corrosive environment.**

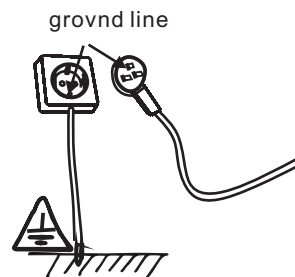


**Be sure to read this manual before use.**

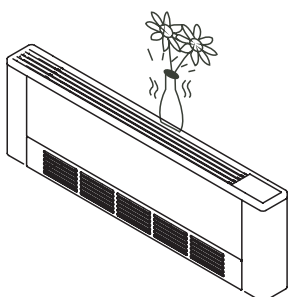
## 1. Introduction



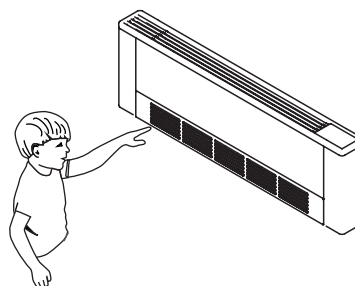
The installation, dismantlement and maintenance of the unit must be performed by qualified personnel. It is forbidden to do any changes to the structure of the unit. Otherwise injury of person or unit damage might happen.



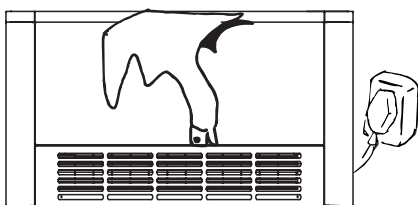
The power supply to the unit must be grounded.



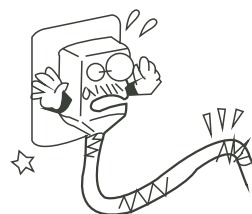
Make sure no water or other liquid drips into the electric box of the unit. Otherwise the unit might be damaged.



Do not insert any foreign objects into the all outlet grill when the fan motor is running. Otherwise injury of person or unit damage might happen.



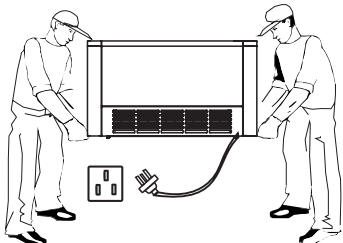
Do not clog air inlet or outlet by paper or any other foreign objects, to keep the unit well ventilated.



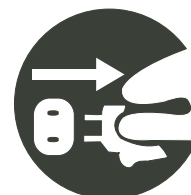
When the power cord gets loose or is damaged, always get a qualified person to fix it.



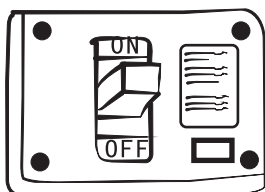
## 1. Introduction



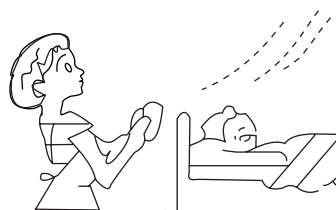
Make sure the power supply to the heat pump unit is off before any operations are done on the unit.



If there is a burning smell or in thunder stop the unit and cut the power, weather.



It is mandatory to use a suitable circuit breaker for the heat pump and make sure the power supply to the heater corresponds to the specifications. Otherwise the unit might be damaged.

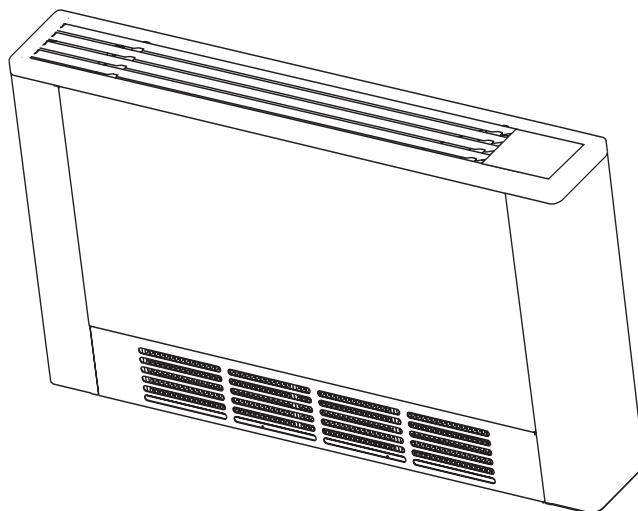


Children should be supervised to ensure that they do not play with the appliance.

# ► 1. Introduction

## 1.3 Features

- Unique structure for super slim and super quiet.
- With high efficiency fan motor.
- Balanced fan system for super low noise.
- Heat exchanger with hydrophilic coated aluminum coil and inner grooved copper tube, effectively increased the heat transfer area of this unit.
- Casing in pre-painted galvanized metal sheet, complete with insulation, grilles in high quality aluminium alloy.
- Condensation collection tray with natural drainage, complete with anti-condensation insulation.
- Mesh filter in regenerative polypropylene.
- Unit can be mounted under ceiling ,on the floor or on the wall.



## 1.4 Operation Temperature Range

Operation mode	Room temperature		Water inlet temperature	
	Min	Max	Min	Max
Heating/Cooling	5°C	32°C-60%U.R./R.H.	4°C	80°C

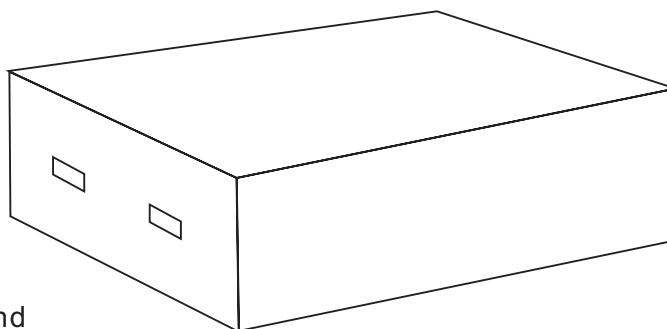


## 2 . Installation

### 2.1 Transportation and handling

#### Danger!

Do not open or tamper the packaging before installation. The units should only be moved and lifted by specialised personnel trained in these operations. Check on arrival that the unit has not been damaged during transport and that it is complete with all its parts.



To remove the packaging, follow these instructions:

1. Check for visible damage
2. Open the packaging.
3. Check that the packet containing the user's manual is inside.
4. Dispose of the packaging material in accordance with current legislation, at the appropriate waste reception or recycling site.

### 2.2 Handling instructions

#### Danger!

Movement of the unit should be performed with care, in order to avoid damage to the external structure and to the internal mechanical and electrical components. Also make sure that there are no obstacles or people along the route, to avoid the danger of collisions or crushing and to prevent the lifting or handling device from turning over.

All the operations listed below must be carried out in accordance with current health and safety regulations, both as regards the equipment used and as regards the procedure followed. Before commencing moving operations, check that the lifting apparatus has the required capacity for the unit in question.

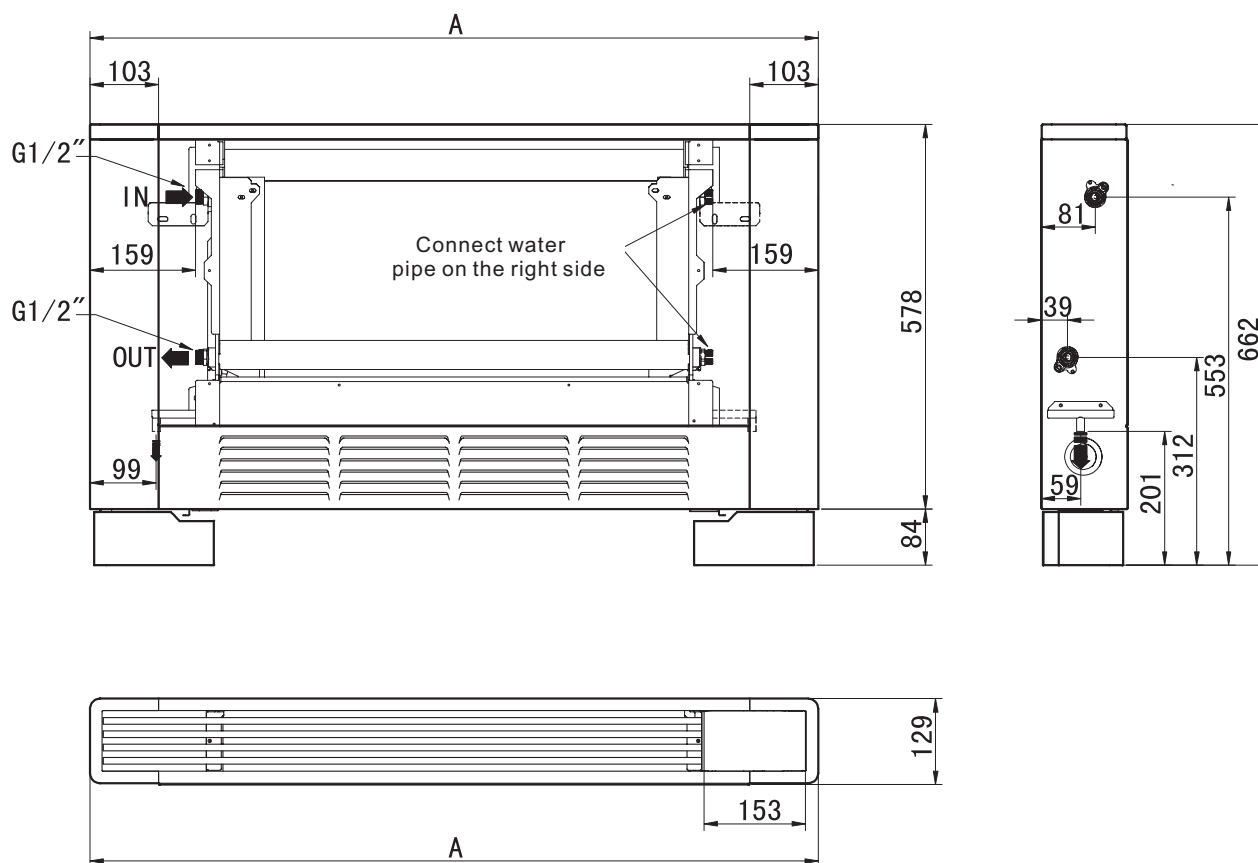
#### Storage conditions

Always check the stickers on the package for the direction of storage and the number that can be stacked.

## 2 . Installation

### 2.3 Dimension

The fan coil unit without motorized water valve

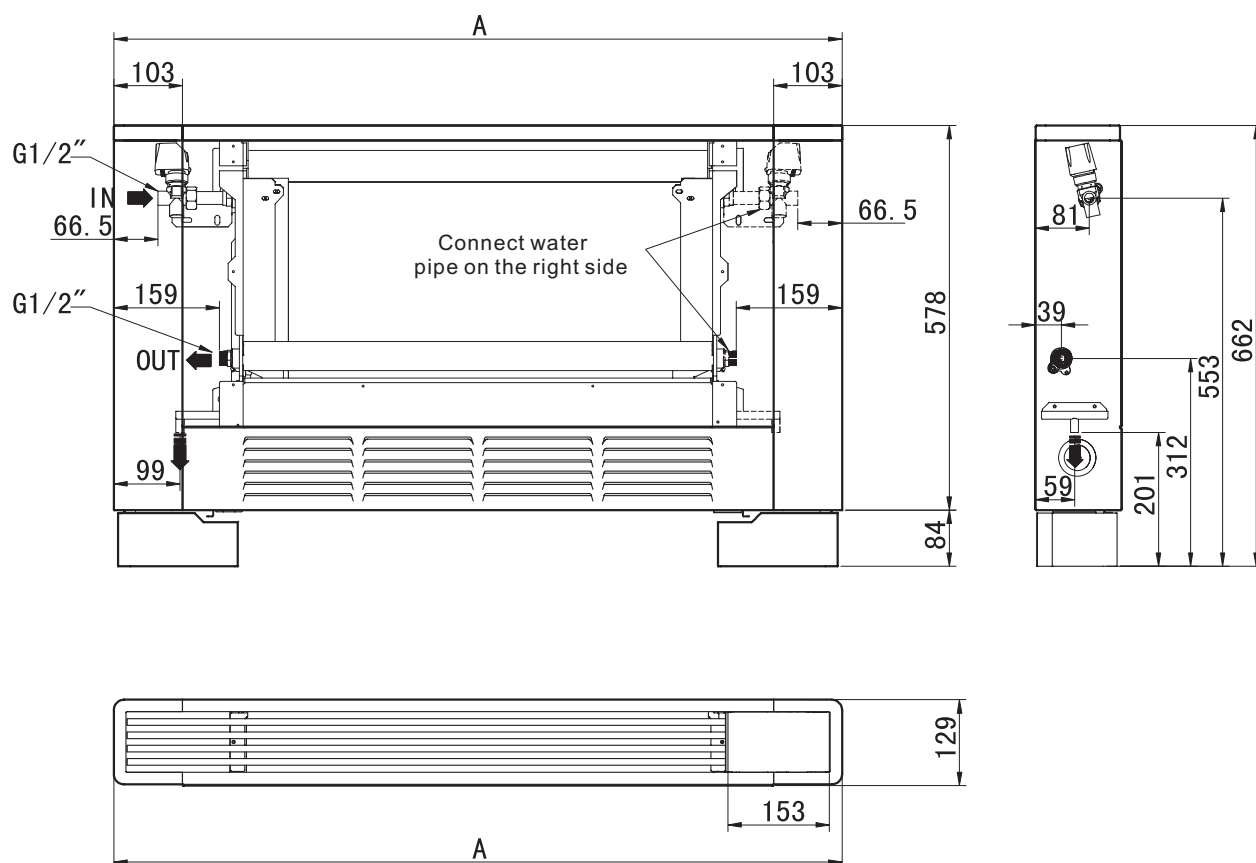


Model no.	A (mm)	Connector size	Net weight (Kg)
BM150*-NW	694	G1/2"	16
BM350*-NW	894	G1/2"	22
BM450*-NW	1094	G1/2"	28
BM550*-NW	1294	G1/2"	32

## 2 . Installation

### 2.3 Dimension

The fan coil with two-way valve

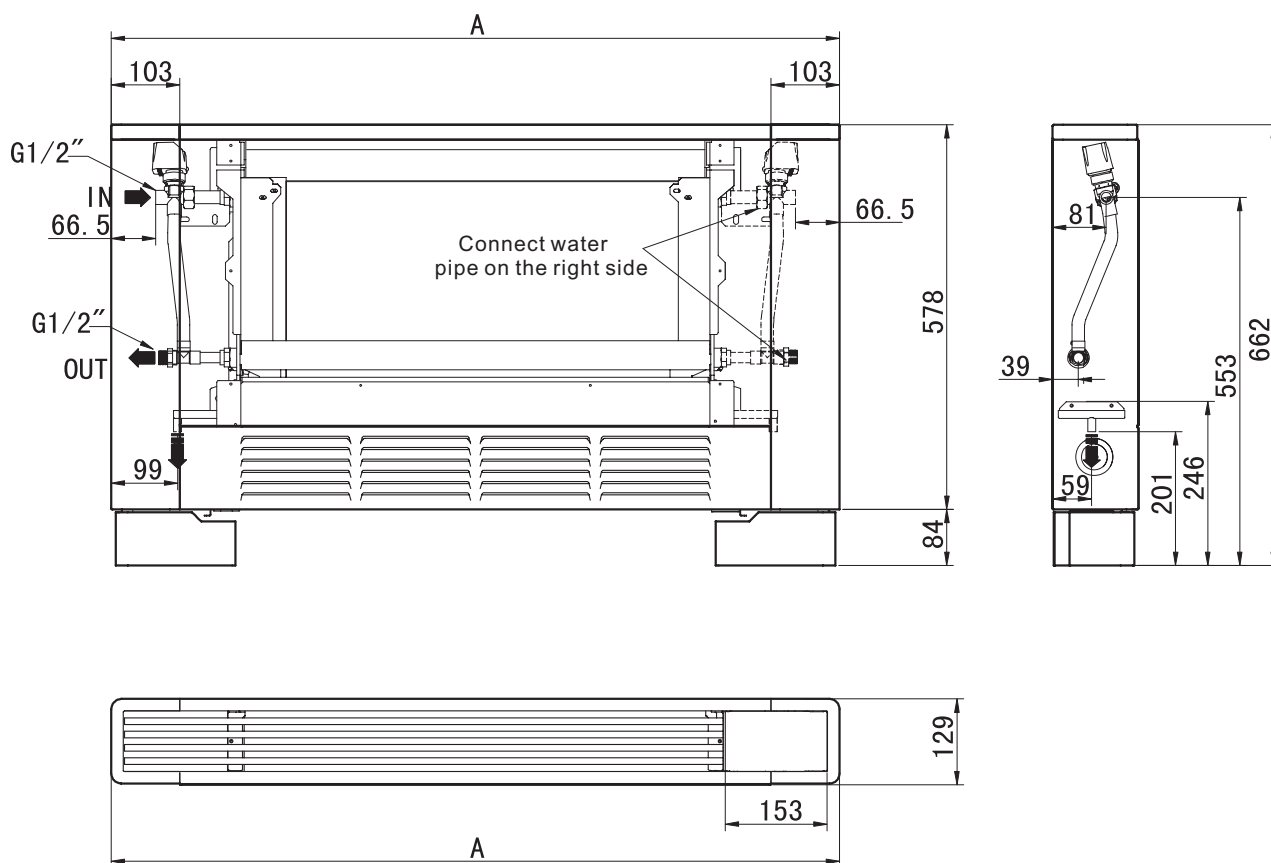


Model no.	A (mm)	Connector size	Net weight (Kg)
BM150*-2W	694	G1/2"	16
BM350*-2W	894	G1/2"	22
BM450*-2W	1094	G1/2"	28
BM550*-2W	1294	G1/2"	32

## 2 . Installation

### 2.3 Dimension

The fan coil with three-way valve



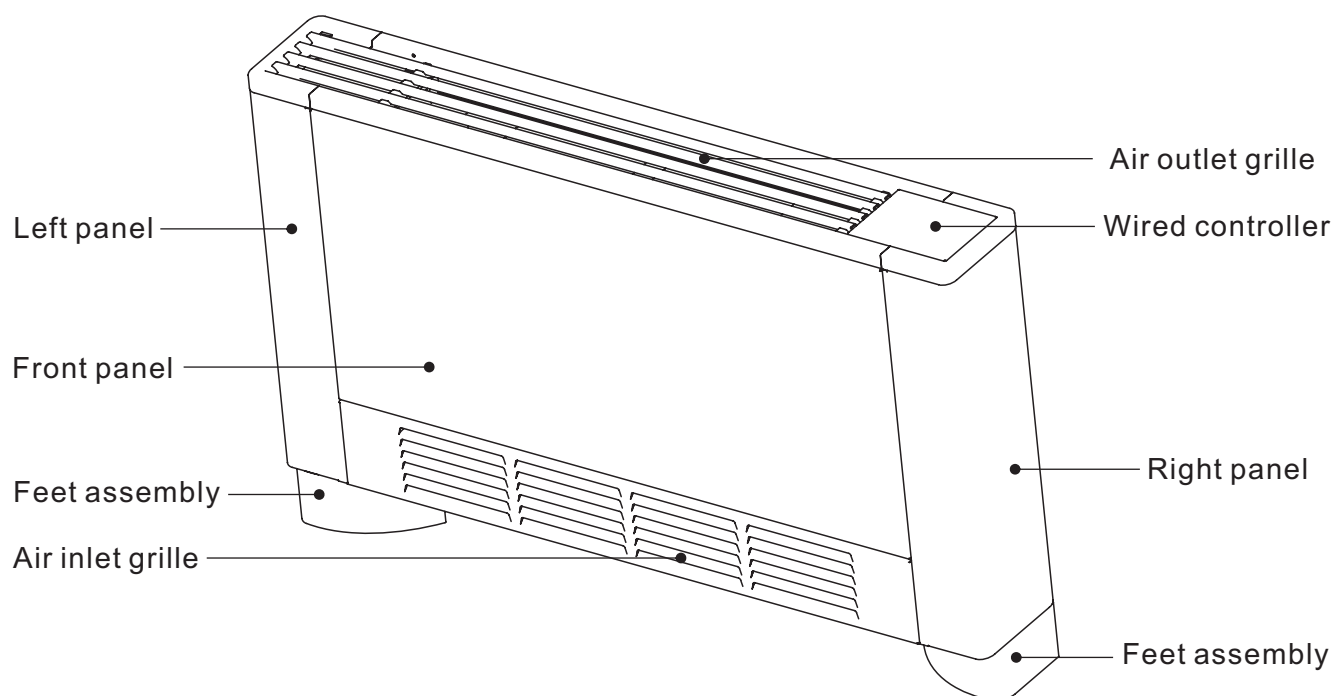
Model no.	A (mm)	Connector size	Net weight (Kg)
BM150*-3W	694	G1/2"	16
BM350*-3W	894	G1/2"	22
BM450*-3W	1094	G1/2"	28
BM550*-3W	1294	G1/2"	32





## 2 . Installation

### 2.4 Part name





## 2 . Installation

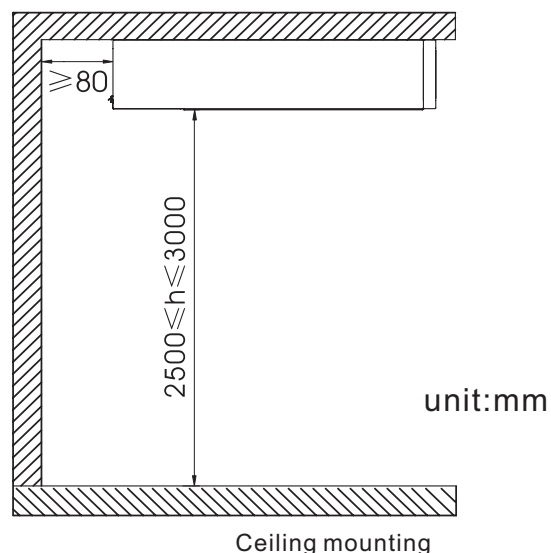
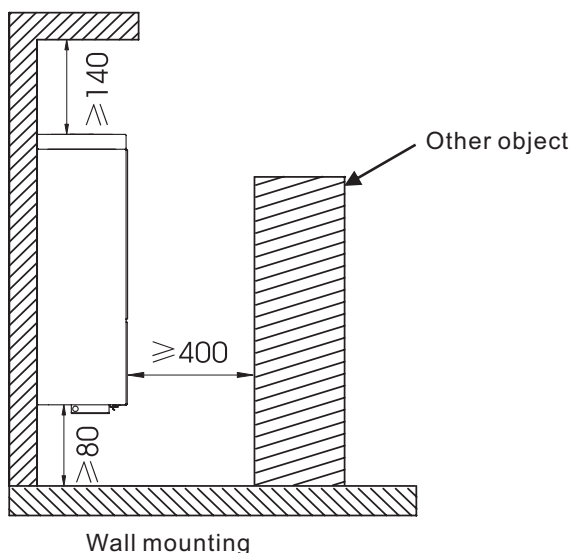
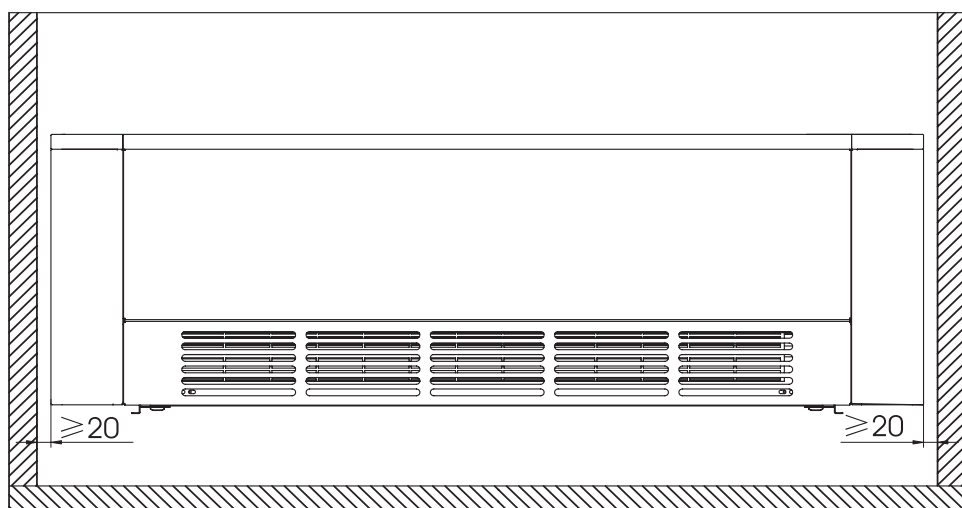
### 2.5 Location

In order to obtain optimum efficiency and performance, and to prevent any failures or hazardous situation, the location must meet the following requirements:

- 1) For floor standing, the minimum distance between air outlet grille and other objects is 140mm. The distance from side panel to the wall is no less than 20mm to make it easy to remove the side panels.
- 2) For wall mounting, the unit should be mounted no less than 80mm higher than floor.
- 3) For ceiling installation, the unit needs to be at least 2.5m far away from the floor, and don't allow to blow the cold air to the body directly. The wall should be strong enough to support the unit.
- 4) The clearance between air inlet grille and other objects is around 400mm. the unit should lean a little bit( $\leq 2$  degrees) to the area of water discharge for good condensate discharge.



If the wall can't support the weight of 28kg, the unit can't be installed on the wall. It's suggested to put the unit on the floor, with the feet to support the weight.



## ► 2 . Installation

### 2.6 Attention for installation



The installation must be performed by qualified and professional installer. Before any operation on the unit, make sure the power supply to the unit is cut.

#### 2.6.1 Necessary tool for installation



measuring reel



"+" type screwdriver



drill bit



Spanner

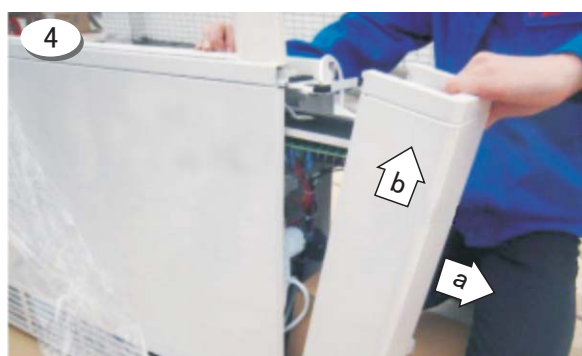
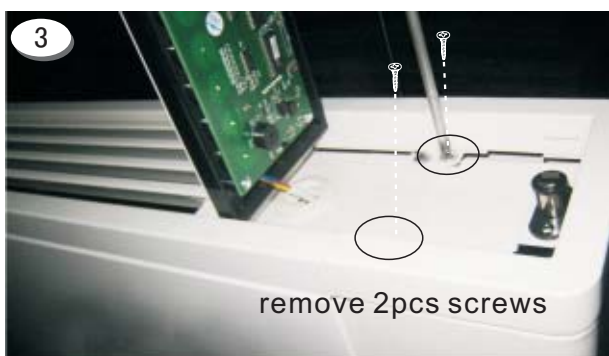


Scissors

### 2.7 Accessories

#### 2.7.1 One accessory box in right side

(1) Press "PRESS" on the operation panel, then the operation panel will bounce (fig. 1 and fig. 2). Screw out 2 pcs screws under the operation panel (fig. 3), simply remove the side corner slight to the right so as to make the reference of the upper profile, and then lift the right panel upwards and pull it out.



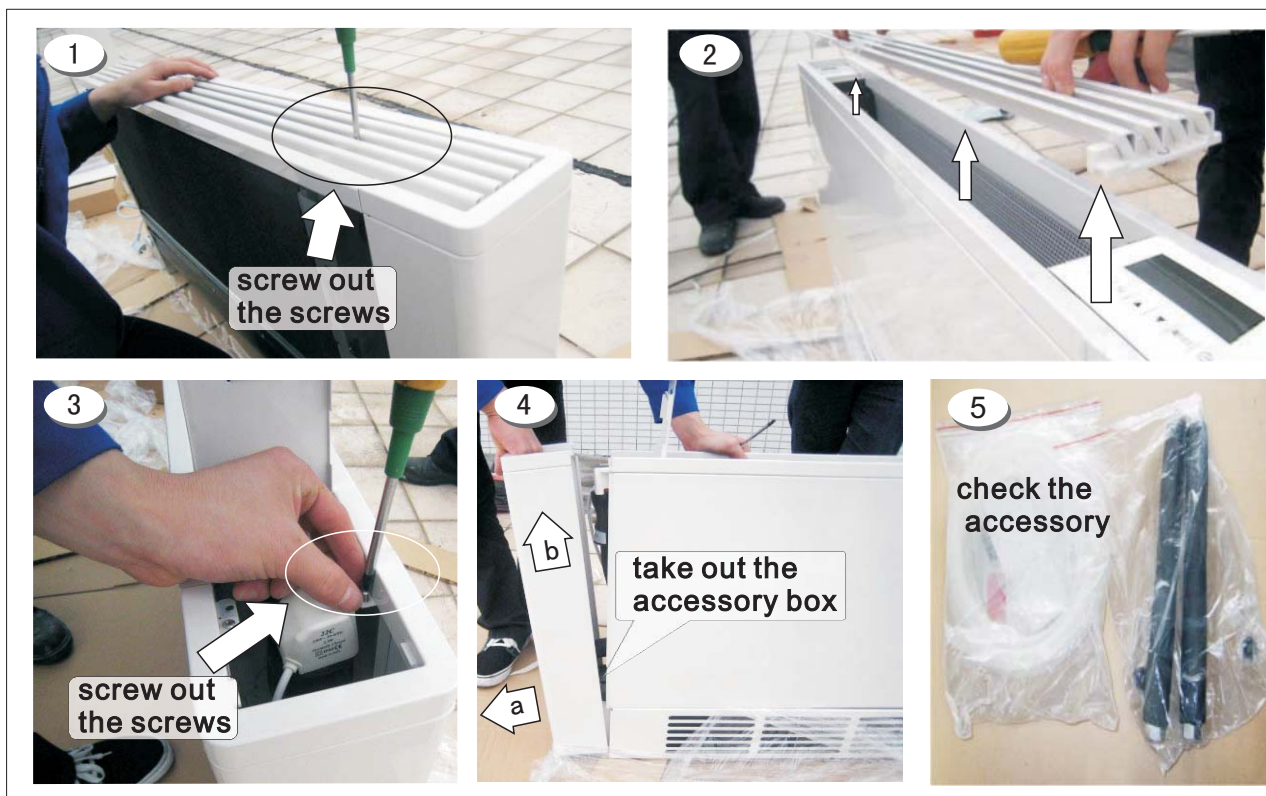
## ► 2. Installation

(2) Take out the accessory box in the right side(refer fig. 5).














### 2.7.2 The other accessory bag in the left side









1. Use screwdriver to remove 2pcs screws on the left and right side of air outlet grille, and then take off the air outlet grille(refer fig 1 and 2).
2. Open the baffle plate on the left side, remove 2pcs screws(refer fig. 3), simply remove the side corner slightly to the right so as to make the reference of the upper profile, and then lift the left panel upwards and pull it out.
3. Take out the accessory bag from left side(refer fig. 5).



## 2. Installation

### 2.7.3 Check the accessory

Name	Quantity	Remark
Feet	2	
Baffle plate for fee	2	
Expansion bolts	4	
Plastic explosive bolt+Gasket	2	
Screws-ST4.1X10	8	
Sensor fixture	1	
Gasket	1	
Spring ring	2	
Flat ring	2	
Machinery screw (M4X12) + Flat ring	2	
Positioning board	1	

Name	Quantity	Remark
Drain pipe	1	
User manual	1	
Ribbon	2	
Remote controller with battery inside(only available for some models)	1	
Rubber soft pipe	1	
Copper drain pipe	1	
Fixture plate for drain pipe	1	
Stainless steel coil	2	

Note: The accessories along with the unit are different according to different installation ways. It depends on different requirements from customer.

A : floor standing or wall mounting installation for A series.

- 1、 $\phi 6$  Plastic explosive bolt $\times 2$
- 2、 $\phi 8$  Metal expansion bolt $\times 2$
- 3、Gasket $\times 2$

B : Horizontal mounting on the ceiling

- 1、Expansion bolts $\times 4$
- 2、Copper drain pipe $\times 1$
- 3、Rubber soft pipe  $\times 1$

## 2 . Installation

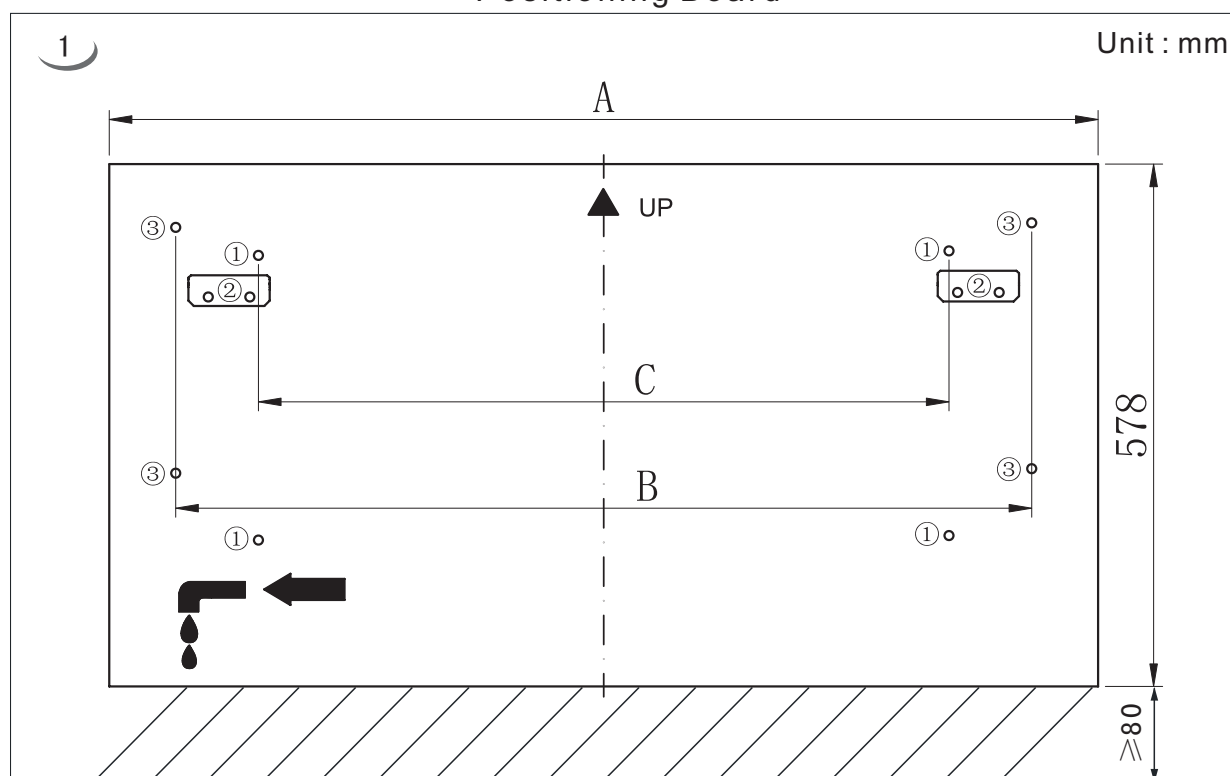
### 2.8 Different installation

#### 2.8.1 Wall mounting

Take out the positioning board from accessory. Please put the positioning board up against the wall. According to the anchor point ②.

1. After a suitable place for installation is selected, the unit must be fastened to the wall in place by two expansion bolts in each side. To fasten the unit to a wooden wall, use suitable bolts.
2. Mark on the wall where the mounting holes will be drilled. Drill the wall with a power drill. Put the  $\phi 8$  explosive bolts in the holes, mount the gasket on expansion bolt to avoid the friction between unit and wall.
3. Mount the unit on the explosive bolts (refer fig. 3) and position the unit properly using a spirit-level, so that it slightly bend to the area of water discharge for good condensate discharge.

Positioning Board



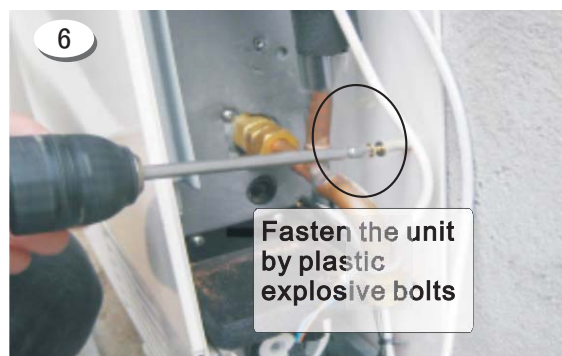
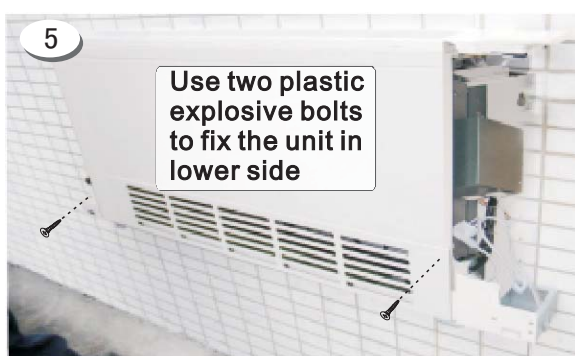
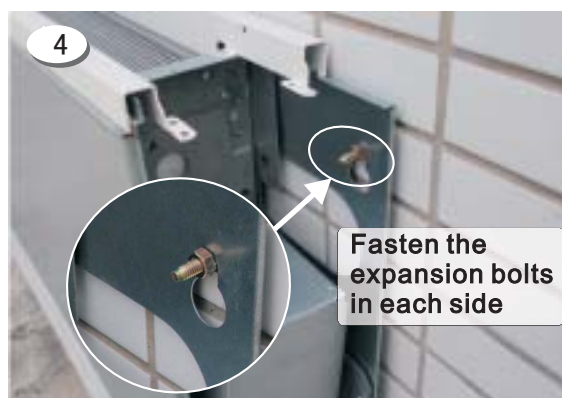
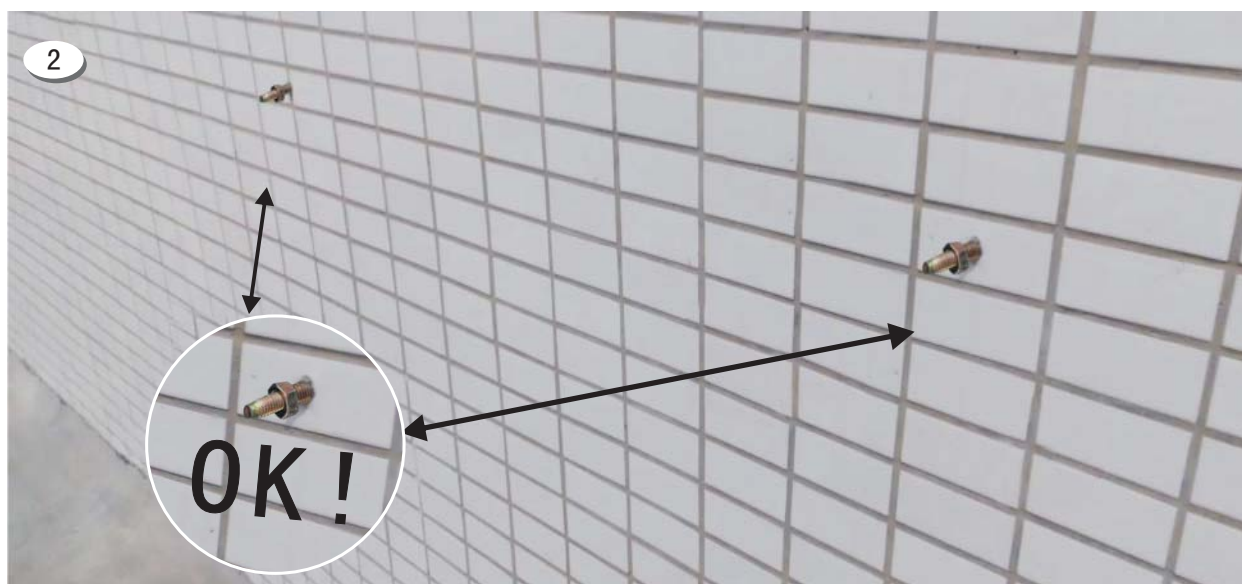
Model	A	B	C
BM150*-*W	1294	1147	964
BM350*-*W	1094	947	764
BM450*-*W	894	747	564
BM550*-*W	694	547	364

➔ The positioning board is available for all kinds of installations. Please choose the corresponding anchor point according to different installations:

- ①—Horizontal mounting
- ②—Wall mounting
- ③—Floor standing



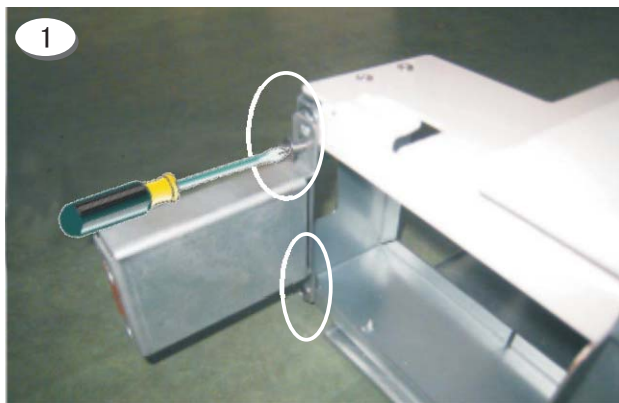
## ► 2 . Installation



## 2 . Installation

### 2.8.2 Floor standing

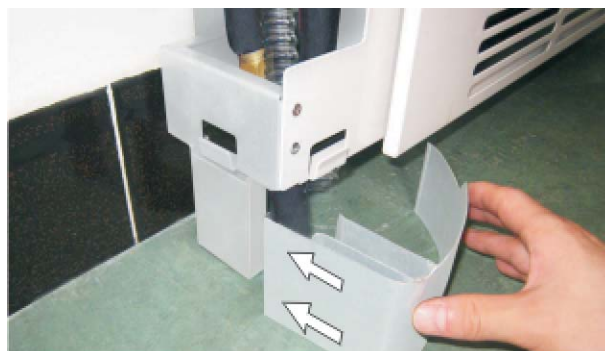
① Fix the feet on the unit by fastening the screws on two sides of feet. After a suitable place is selected, put the unit against the wall, fasten expansion bolts on left and right side of back panel to fix the unit on the wall. Mount the gasket on expansion bolt to avoid the friction between unit and wall.



### ② Installation of baffle plate for feet

Please insert the baffle plate into the feet after water connection is finished (Water connection according to the chapter 2.8.4).

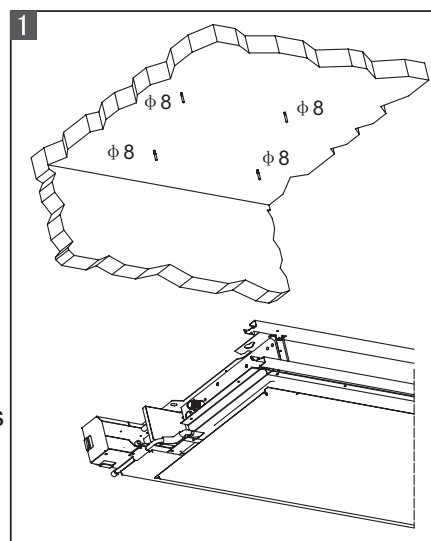
The depth for inserting the baffle plate into the feet can be adjusted according to the thickness of base board, so that the baffle plate can be close to base board.



### 2.8.3 Horizontal mounting(optional)

Horizontal mounting is only available for some models which has special drain pan for installation under ceiling.

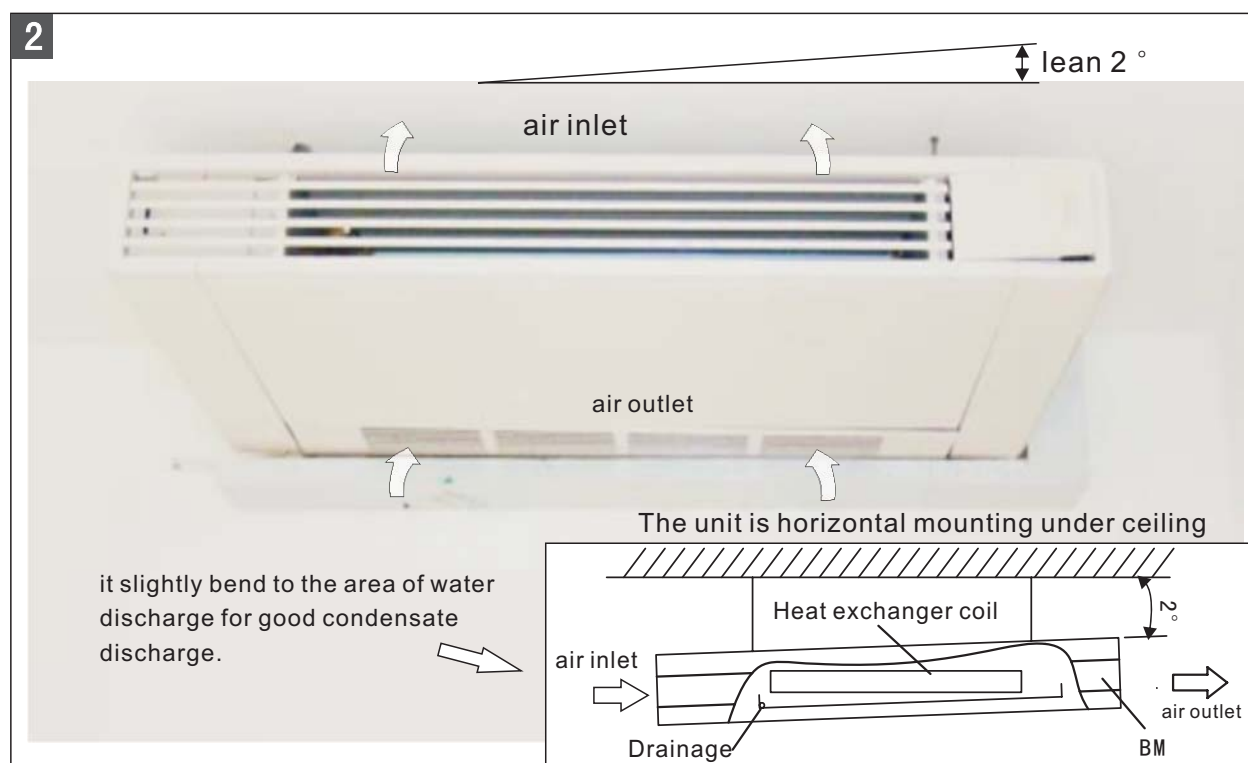
1. the unit must be fastened to the ceiling, using expansion bolts on each side. To fasten the unit to a wooden ceiling, use suitable bolts.
2. Take out the positioning board from accessory. According to the anchor points ① in the chapter 2.8.1, Mark on the ceiling where the mounting holes will be drilled. Drill 4 holes in order to insert the expansion bolts. Put the expansion bolts ( $\phi 8$ ) in the holes, mount the gasket on the expansion bolt to avoid vibration between unit and ceiling.



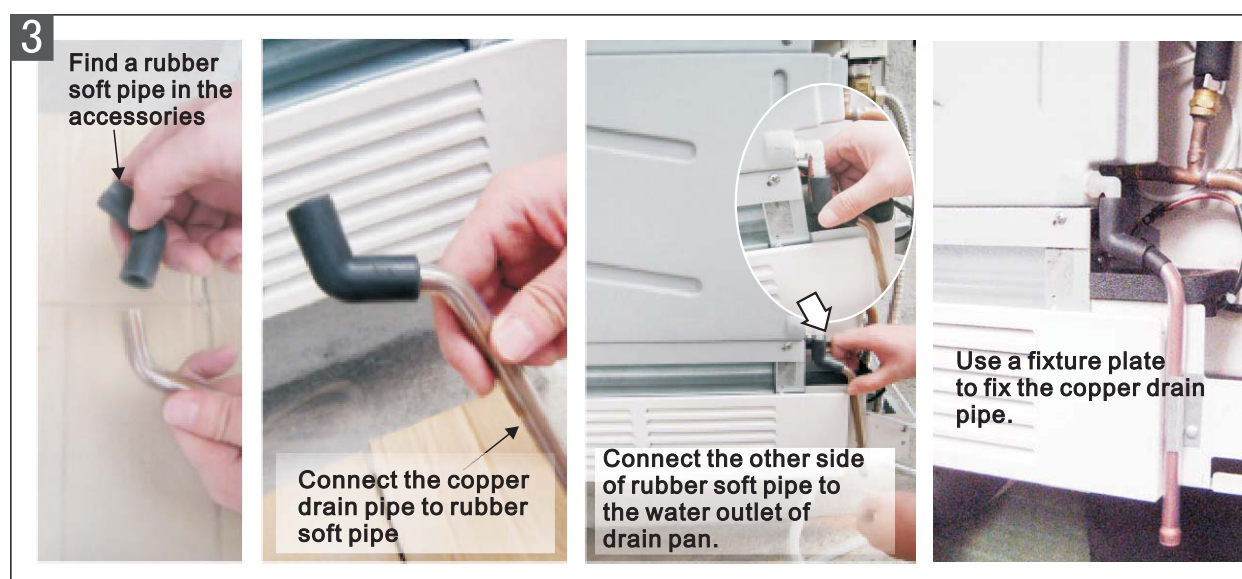


## 2 . Installation

3. Mount the unit on the expansion bolts and position the unit properly using a spirit-level, so that it slightly lean( $\leq 2$  degrees) to the area of water discharge, for good condensate discharge(refer fig. 2).



4. Connect the drain hose for condensate(refer fig.3).

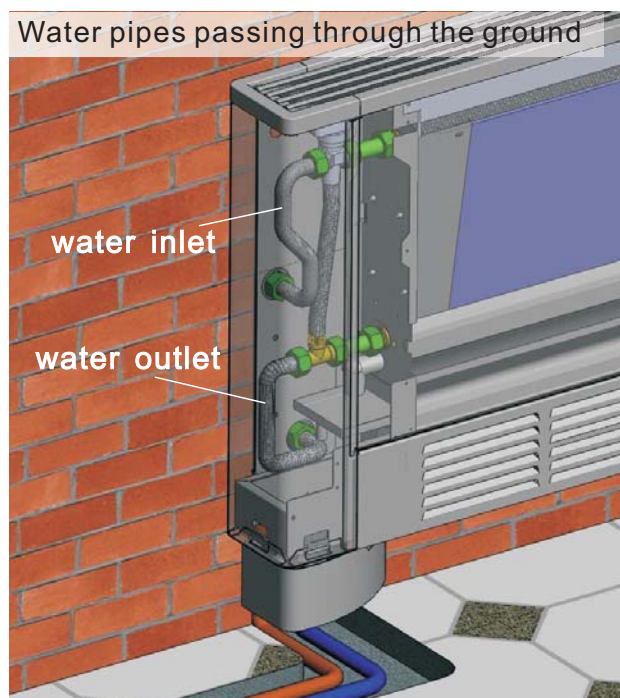
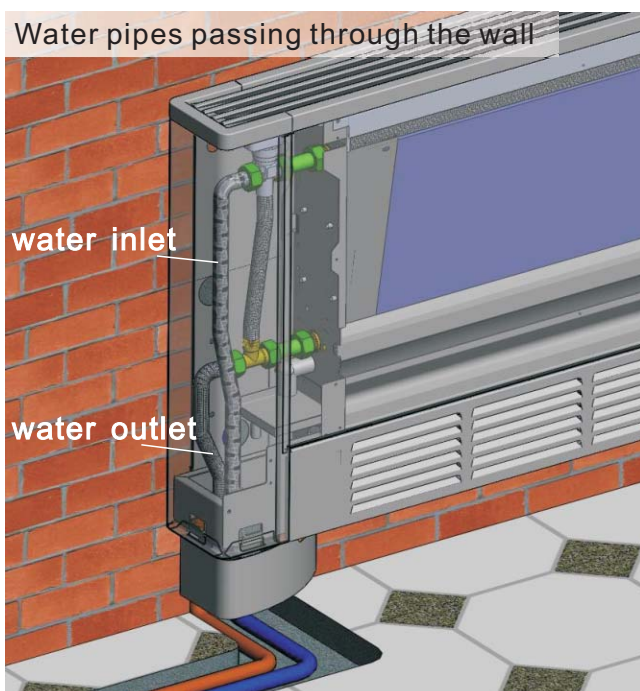


## 2 . Installation

### 2.8.4 Water connection

Note: the water pipe mustn't be beyond the range of side panel, otherwise the side panel can't be installed back.

After the unit is installed in place, connect water inlet and outlet pipes according to the stickers on the unit. Please refer local safety requirements for safety purpose. After installation, please check the leakage, clean the unit etc, to meet the local regulations before usage. (Note: water pipe is suggested to use stainless steel corrugated pipe).



#### Installation steps:

- (1). Take off the sealing cover of water inlet/outlet pipe.

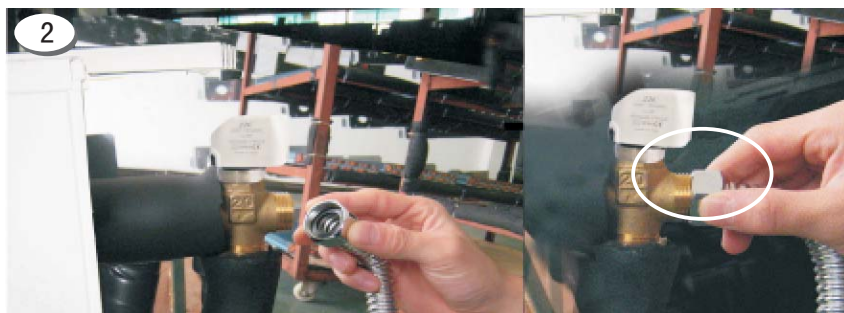
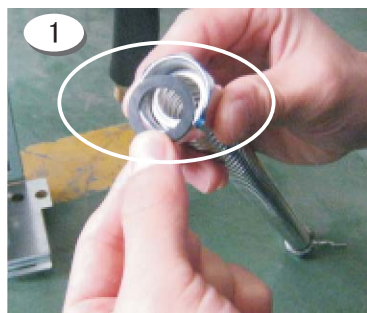


- (2). Connect the unit to water system, the inlet/outlet water pipe is suggested to use stainless steel corrugated pipe, choose the water pipe in proper length to connect the unit to water system.

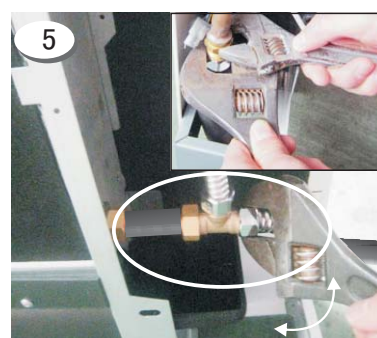
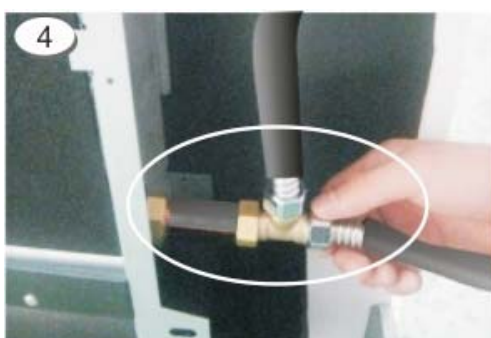
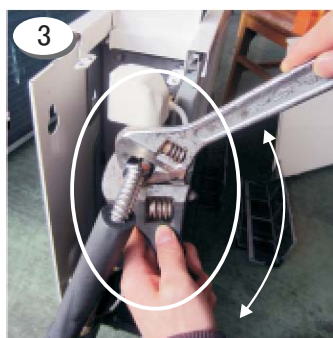


## 2 . Installation

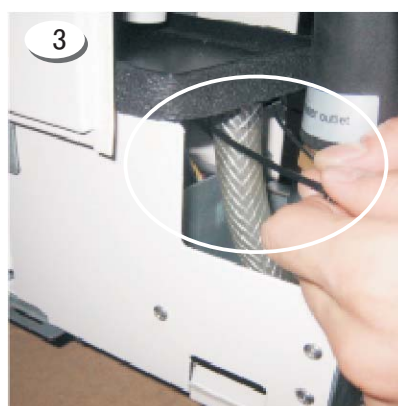
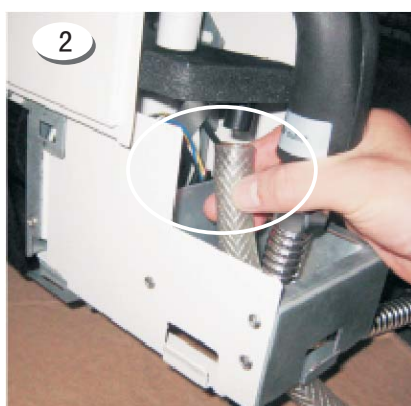
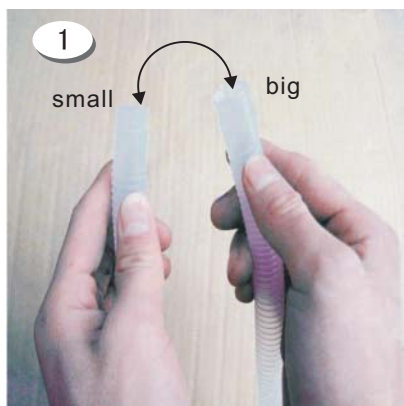
Note: The gasket seal must be put on the connector jointing, then fasten the screws nuts by spanner , to make sure there is no leakage in the joint.



Note: To connect the water inlet/outlet of the unit to water pipe, it's necessary to use a spanner to fix the water inlet/outlet, and use another spanner to screw up the connector of water pipe into the water inlet/outlet. Don't use only one spanner to do this operation, otherwise the water pipe of the unit would be damaged by turning round.



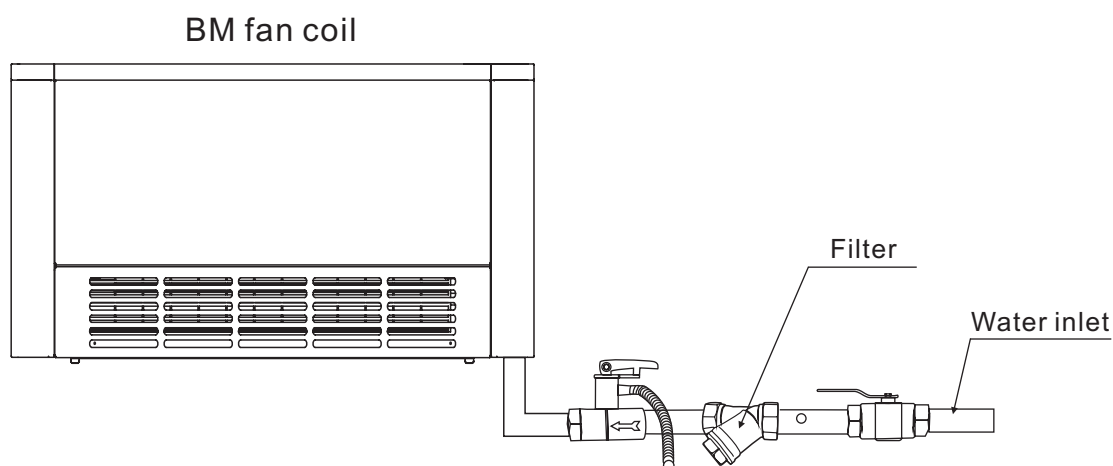
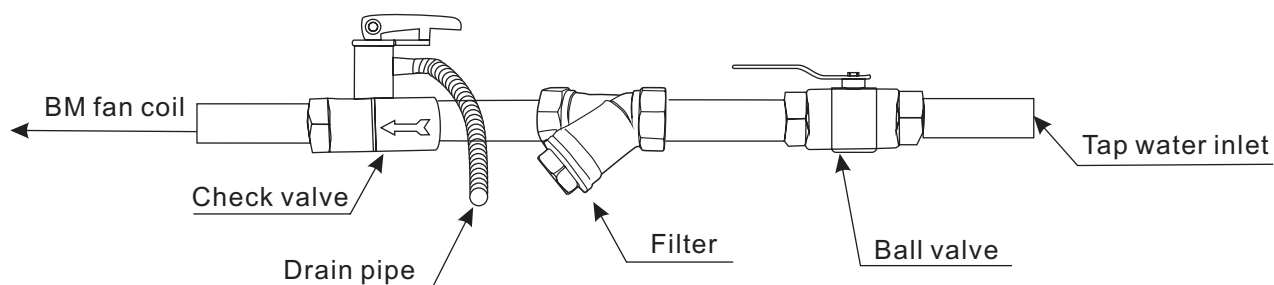
(3). Connect the smaller end of drainpipe to the outfall of auxiliary drain pan, then fasten the jointing by ribbon.



## 2 . Installation

### 2.8.5 Filter

- ▼ It's suggested to install a 60~80 mesh filter on the water inlet of the unit, to keep high quality of water and collect impurity contained in the water. Make sure keep the water filter mesh downwards. Check valve is recommended so that the filter can be cleaned or changed in an easier way.



### 2.8.6 Insulation

All the water piping must be insulated with insulation no less than 9mm thick. But all the valve switches need to keep outside for future use. The insulation must be fastened by tape, without any gap.

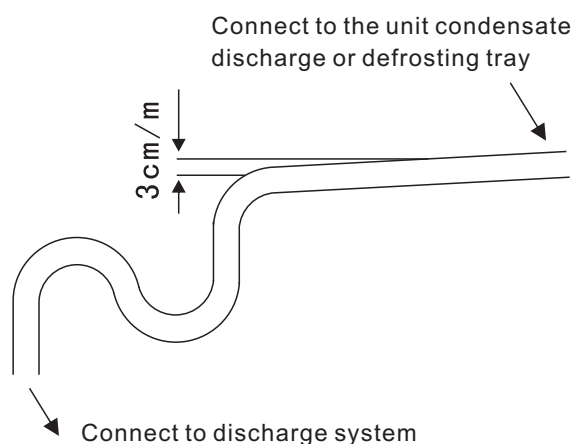


## 2 . Installation

### 2.8.7 Setting up the condensate drainage system

The condensate drainage system must be set up with an adequate decline, to ensure the water drain away properly. Following are directions for setting up a proper condensate drainage system:

Notice: To check if water flow is in correct direction, it's commended to pour some water into the drain pan very slowly. If the water can't drain away smoothly, some adjustment should be made.

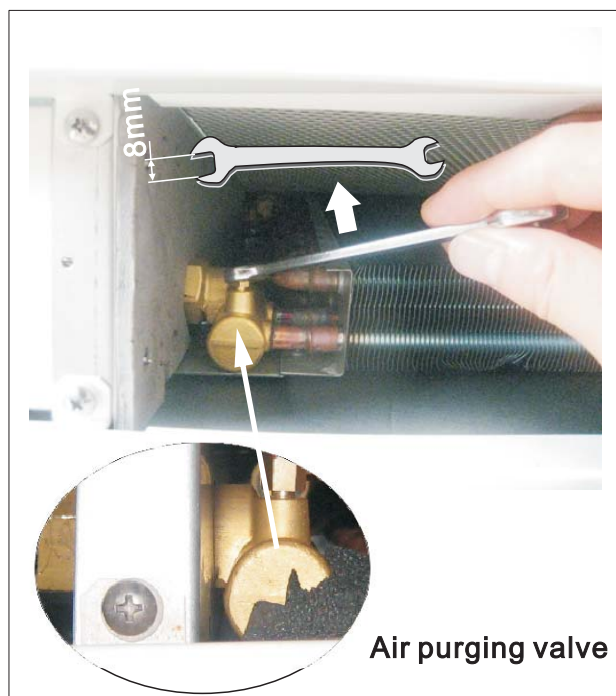


## 2.9 Test run

### 2.9.1 Air purging

1. After finishing the installation, proceed with the following steps to discharge the air in the unit:

- ①. Take out the air outlet grille.
- ②. Open all the valves of water system and start the water pump.
- ③. Open air purging valve, and check the water in a transparent pipe connected with the valve. If the transparent pipe is filled with water without any bubbles, the air is completely purged from the coil. Then close the purging valve.





## 2 . Installation

### 2.9.2 Per Start-up

Before starting up the unit, a certain number of verifications must be preformed on the installation to ensure that the unit will operate under the best possible conditions. The check list below is not exhaustive and should only be used as a minimum reference basis:

- ①. Make sure fan rotates freely.
- ②. Inspect all water piping for flow direction.
- ③. Verify all system piping is correct for operation as per installation requirement.
- ④. Check voltage of the unit power supply and make certain voltage is within authorized limitations.
- ⑤. Make sure the unit is properly grounded.
- ⑥. Check the presence of protective and breaking devices.
- ⑦. Check all electric connections for tightness.
- ⑧. Check all piping for leaks and air is well ventilated.

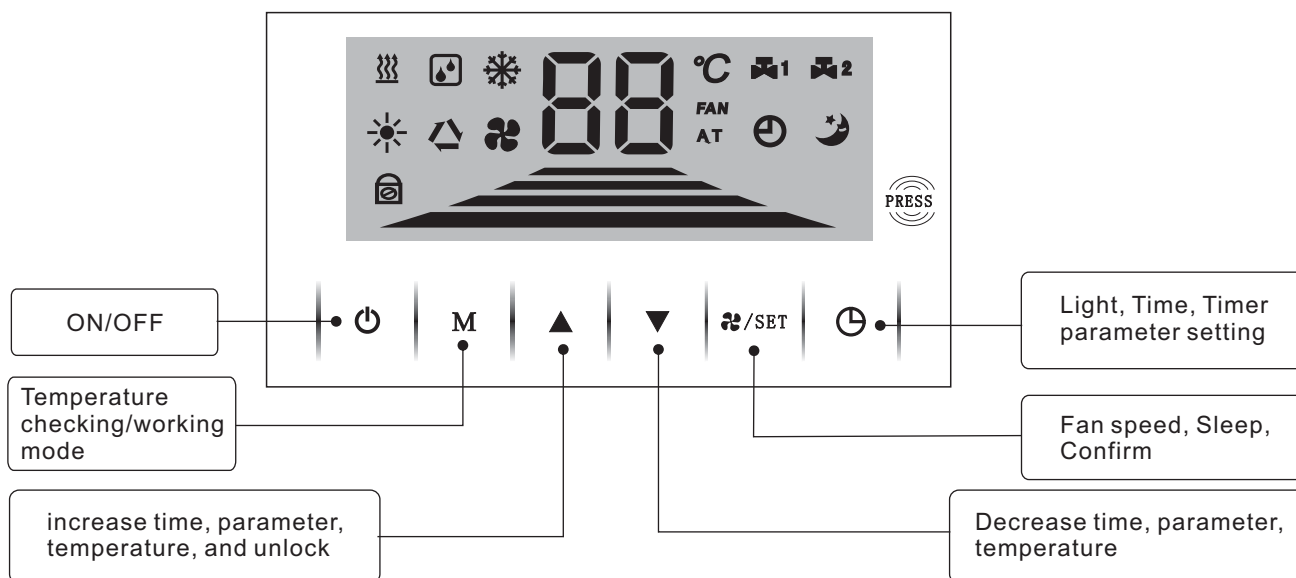
### 2.9.3 Unit Start-up















After ensuring all electric connections confirm to the local regulations, follow the Operation Instructions to start-up the unit.

After start-up the unit, if there is a abnormal sound, please shut off the power supply immediately to ensure the safety of the unit.

## 3 .Operation Instructions

### 3.1 Wired controlled




Symbol	Meaning	Symbol	Meaning
	Heating mode		Temperature or parameter
	Cooling mode		Degree Celsius
	Auto mode		Water valve
	Dehumidify mode		Valve for radiator
	Electric heater(reserved function)		Sleep mode
	Fan mode		Timer
	Lock		Fan speed

## 3 .Operation Instructions



### 3.2 Operation instructions

#### 1.Standy

In standby status,the unit doesn't work,but show air inlet temperature.The following status are in standby:  
The unit is standby,when it's fed with power.  
When unit is running,press“”once to become standby again.






#### 2.ON/OFF

In standby status,press “”for 3seconds to ture on he unit.  
Press“” for 3 seconds again to turn off the unit.  
When the unit is turned on,air inlet temperature,working mode, fan speed and water valve status show on the display.



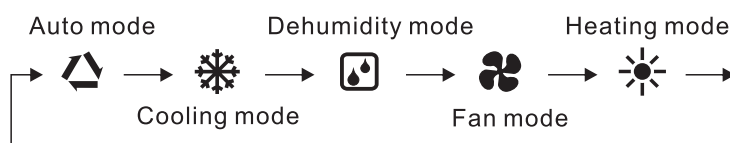
#### 3.Unlock

When the unit is turned on,all the buttons will be locked after no operation for 30 seconds“” show on the display,then all the buttons are invalid.Press“”for 3 seconds to unlock all the buttons.“”disappears.







#### 4.Mode selection

When unit is turned on,press“M”to choose working mode.It comes in the sequence :



#### 5.Temperature setting

When the unit is turned on,press“”or “”to enter the target air temperature setting.Press“”once,the target temperature increases by 1°C.Press“”once,the target temperature decreases by 1°C.





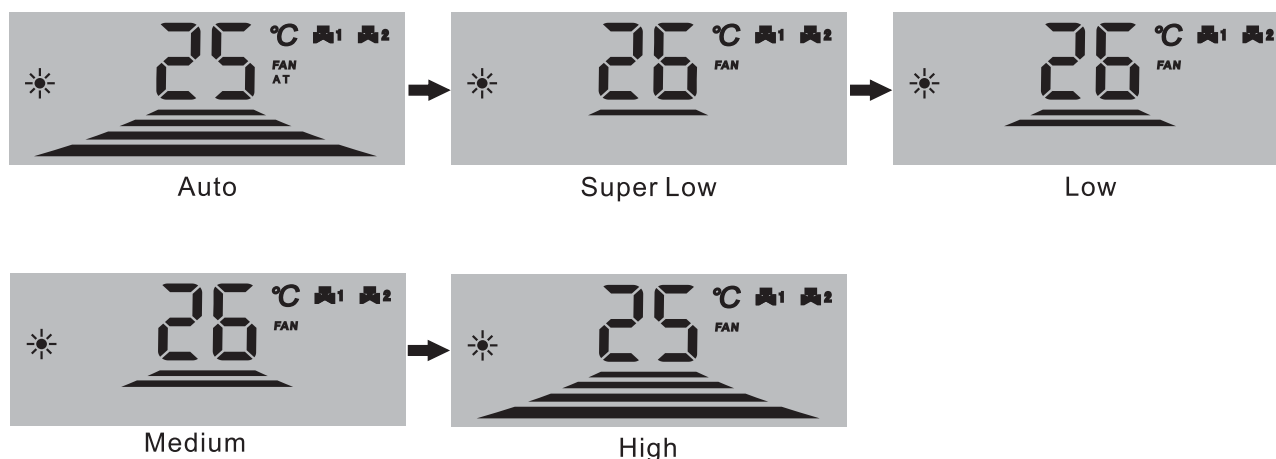


## 3 .Operation Instructions

### 6.Fan speed selection

By pressing SET button several times,it's possible to adjust the fan speed between four available speeds,or to activate the AUTO speed.

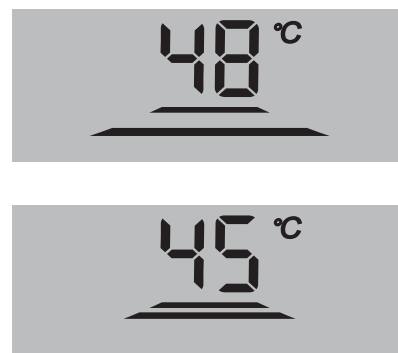
The operation speed switches in the following sequence by each press:



Note:Super low speed is only available in heating mode.

### 7.Temperature checking

When the unit is turned on or in standby,press“M”for 3 seconds to check the water inlet temperature.Press“▲”once,air outlet temperature shows in the display.Press“▼”once,water inlet temperature will show again.If there is no operation for 5 seconds,the checking status will exit to main interface.



### 8.Background light

Press“⌚”for 3 seconds each time,the light of background will be changed in the sequence: High,medium,low.

### 9.Sleep function

Press“SET”for 3 seconds,the unit enter into Sleep mode.“☾”shows on the display.Press “SET”for 3 seconds again,sleep mode exits.

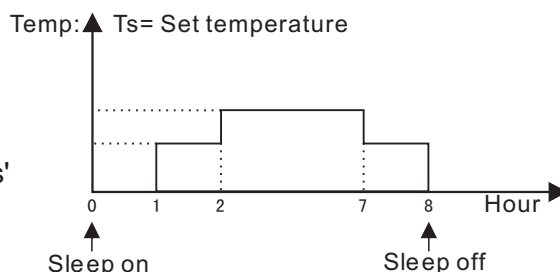
Sleep function can be set in Cooling, Heating and Auto mode. The function keeps on working for 8 hours, and exit after 8 hours automatically).

If Timer Off and Sleep function are set, the unit will turn off once the set time is up, and sleep function is cleared.In sleep function, fan speed is automatically set at low speed.

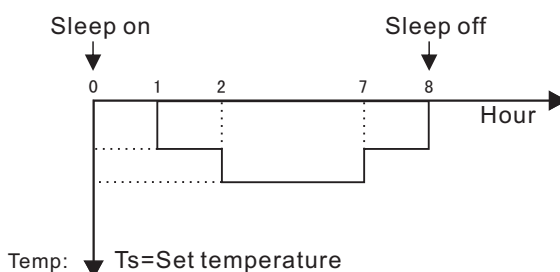


## 3 .Operation Instructions

In cooling mode, One hour after SLEEP mode starts, temp. will become  $1^{\circ}\text{C}$  higher than temp. setting. After running for another 1 hour, temp. rises by  $1^{\circ}\text{C}$  further. Unit will run for 5 hours at this temp. then decrease by  $1^{\circ}\text{C}$  after running for another 1 hour, Temp. falls down by  $1^{\circ}\text{C}$  further after 8 hours' working and exit from this mode. The unit automatically switch to the previous mode before Sleep function.



In heating mode, One hour after SLEEP mode starts, temp. will become  $1^{\circ}\text{C}$  lower than temp. setting. After running for another 1 hour, temp. decreases by  $1^{\circ}\text{C}$  further. Unit will run for 5 hours at this temp., then increases another  $1^{\circ}\text{C}$ . after running for another 1 hour., temp. falls down by  $1^{\circ}\text{C}$  further after 8 hours' working and exit from this mode. The unit automatically switch to the previous mode before Sleep function.



### 10. Time setting

In the main interface. Press “⌚” once, the time in hour shows.

Press “SET” to activate the setting.

Press “▲” or “▼” to increase or decrease one hour. Press “SET” again to save the setting. Press “▲” to show the time in minute, press “SET” to activate the value. Press “▲” or “▼” to increase or decrease one minute. Press “SET” again to save the setting.



### 11. Timer setting

☞ Timer ON setting

In the main interface. Press “⌚” once, the time in hour shows.

Press “▲” twice, Timer ON in hour shows.

Press “SET” to activate the setting. Press “▲” or “▼” to increase or decrease one hour. Press “SET” again to save the setting of Timer ON in hour.

Press “▲” once again, Timer ON in minute shows.

Press “SET” to activate the setting. Press “▲” or “▼” to increase or decrease one minute. Press “SET” again to save the setting of Timer ON in minute.



## 3 .Operation Instructions

### Timer OFF setting

In the main interface.Press“⌚”once,the time in hour shows.

Press“▲”four times.Timer OFF in hour shows.

Press“SET”to activate the setting.Press“▲”or“▼”to increase or decrease one hour.

Press“SET ”again to save the setting of Timer OFF in hour.

Press“▲”once again,Timer OFF in minute shows.

Press“SET”to activate the setting.Press“▲”or“▼”to increase or decrease one minute.Press“SET”again to save the setting of Timer OFF in minute.



### Cancel the setting of Timer ON/OFF

According to the above steps, Timer ON and OFF is set as the same time, then Timer function will be cancelled. "⌚" disappears in the display.

### 12.Parameter setting

When the unit is standby,press“M”,“SET”and“⌚”at the same time for 3 seconds to set the parameter.

Press“▲”or“▼”to select the parameter you want to change.Press“SET”to activate the parameter setting.The parameter value flickers.Press“▲”or“▼”to increase or decrease the parameter value.Press“SET”again to save the setting.Without any operation for 3 seconds, the display will exit to main interface of standby status.



Parameter 1



Parameter 2



Parameter 3



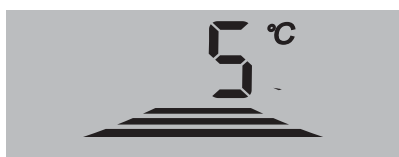
Parameter 4



Parameter 5



Parameter 6



Parameter 7



Parameter 8



Parameter 9



## 3 .Operation Instructions

Parameter	Meaning	Setting Range	Default Value
1	Fan speed at high speed in cooling	450–2000	1400
2	Fan speed at medium speed in cooling	450–2000	1200
3	Fan speed at low speed in cooling	450–2000	1000
4	Fan speed at high speed in heating	450–2000	1250
5	Fan speed at medium speed in heating	450–2000	1000
6	Fan speed at low speed in heating	450–2000	750
7	Fan speed at super low speed in heating	450–2000	550
8	Motorized water valve	0:Without water valve 1:With water valve	1
9	Memory function	0:Without memory function 1:With memory function	1

Due to the limitation of the display, we will use two digits and symbol of “°C” to show fan speed.

for example, 13 stands for 1300rpm, while 13°C Stands 1350 rpm.

13°C

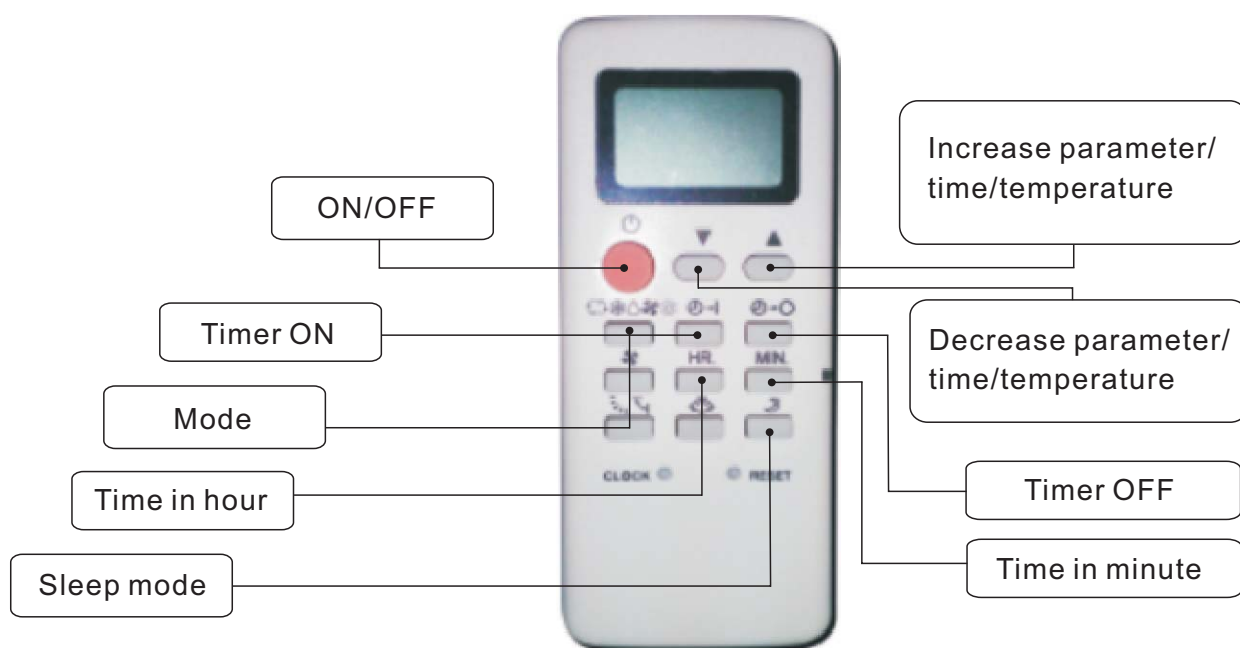
### 3.3 Protection

Failuer code	Description	Solution
E0	PCB and wired controller can't communication properly	Check if the cable between PCB and wired controller gets loose, if yes, fasten it. If not, change PCB or wired controller.
E1	inlet water temperature sensor fails, limitation for water inlet temperature stops	Check if the sensor cable gets loose, if so, fasten it. if not, change the sensor
E2	air inlet temperature sensor fails	Check if the sensor cable gets loose, if so, fasten it. if not, change the sensor
E3	air outlet temperature sensor fails	Check if the sensor cable gets loose, if so, fasten it. if not, change the sensor
E4	fan motor fails or fan motor cable not well connected	Check if the fan motor cable gets loose, if so, fasten it, if not, change the motor.

## 3 .Operation Instructions

### 3.4 Remote controller

Note: There is no change in display when setting the parameters by remote controller.



Auto mode



Cooling mode



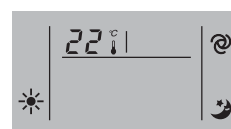
Heating mode



Dehumidity mode



Sleep mode



Fan mode



Auto speed



Low speed



Medium speed



High speed



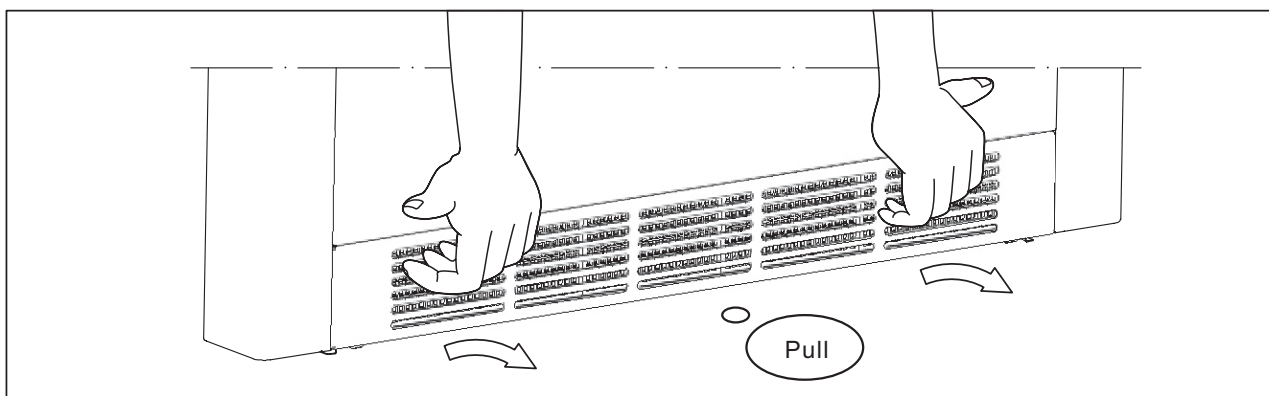
## ► 4 .Precautions

### 4.1 Precautions

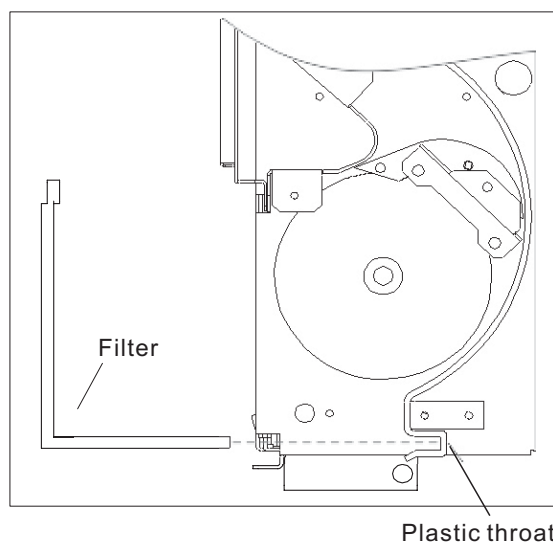
- It is forbidden to change the inner structure and wiring of the unit. Otherwise injury of person or unit damage might happen.
- If the unit fails to work properly, please cut the power supply immediately. The maintenance work must be performed by qualified people.
- “Failure code” in this manual is helpful to find out and fix the failure of the unit.
- In cold weather, if the unit is no longer needed, do drain out all the water inside the system.
- Occasionally check the surrounding, stability and airflow of the unit.
- The filter must be cleaned occasionally to ensure the water flow of the water system

### 4.2 Cleaning the air filter

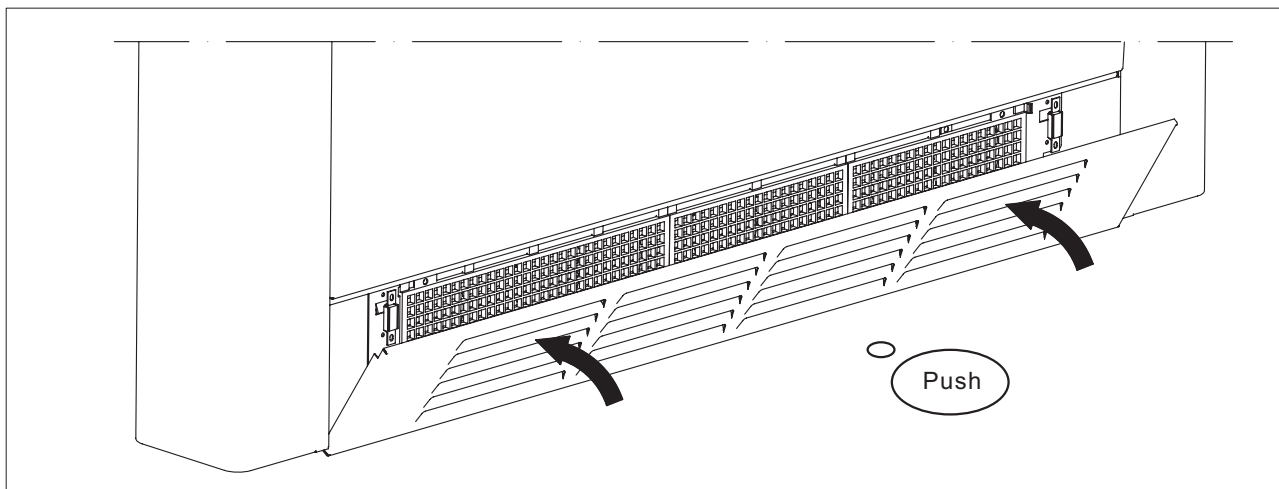
To ensure the correct air intake, the air filter must be cleaned once a month, or more frequently if the unit is being used in very dusty environment.



To extract the filters, pull them towards you. Filters are cleaned by removing any impurities from their surface with a vacuum-cleaner; then wash them with a mild detergent and plenty of warm water, rinse them thoroughly and dry before re-assembly. Filters must be re-fitted by introducing the end of the shorter side into the plastic guide positioned under the fan.



## ► 4 .Precautions



### 4.3 Check and clean the air inside water system occasionally

It is suggested to check and clean the air inside water system occasionally, to ensure the performance of the unit.

Please do air purging work as per 2.11

### 4.4 Drainage

Please drain out the water in the system, if the unit is determined not working for a long time. Occasionally check whether there is air in the water system. If yes, purge it out as per instruction in chapter 3.

### 4.5 Service to electric parts

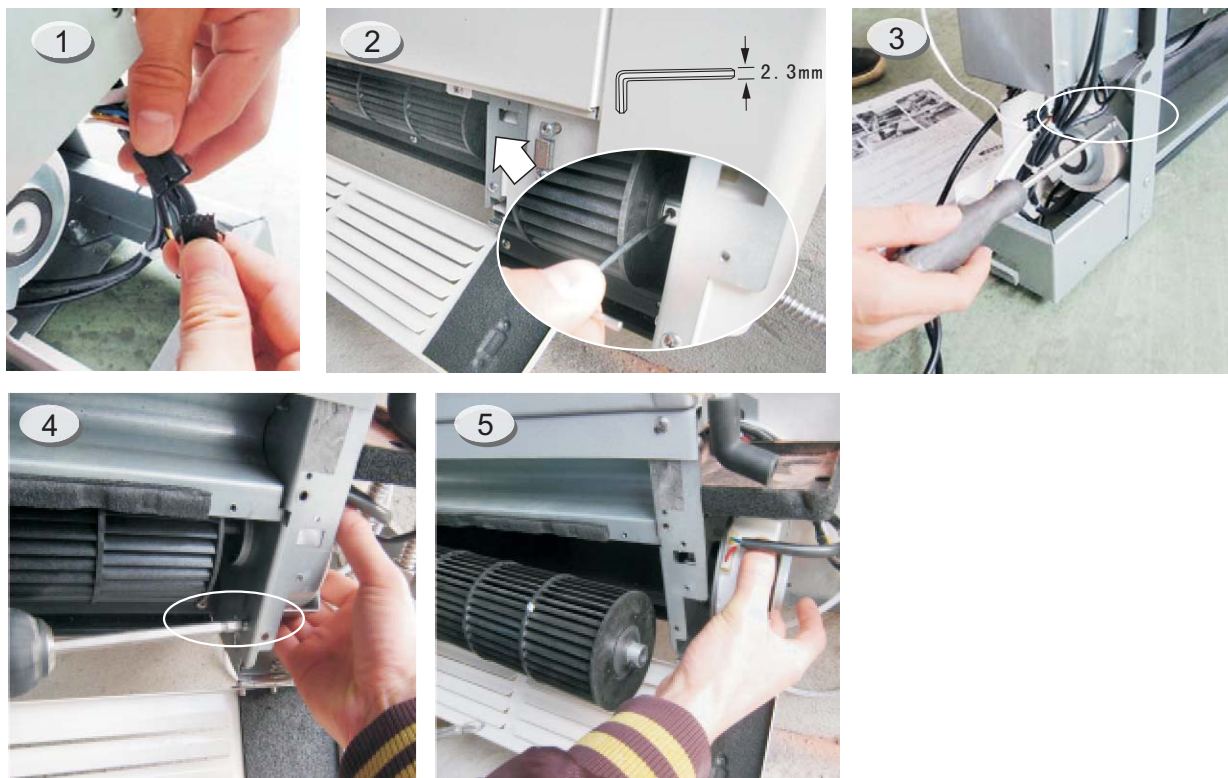
If any service to electric parts is required, please open the right side panel

## ► 4 .Precautions

### 4.6 Service to fan blade and fan motor

When fan system is not working properly, please open right side panel according 2.7.1 and then

1. Use a Allen key to unlock the fan blade with fan motor.
2. Disconnect the connector between fan motor and controller.
3. Take off the screw for fan motor fixture.
4. Take out the fan blade or fan motor.

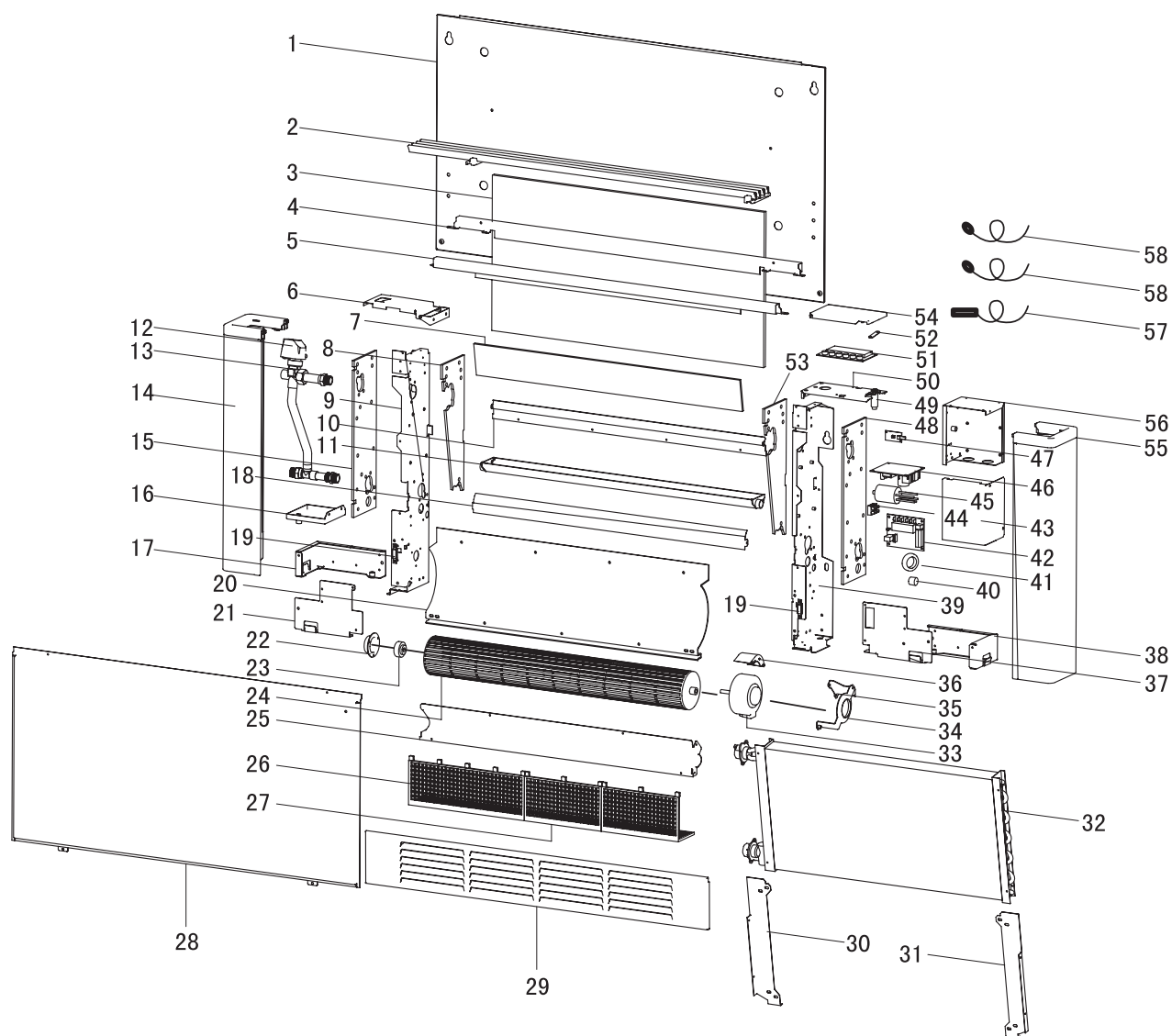






## 5 .Appendix

### 5.1 Exploded view





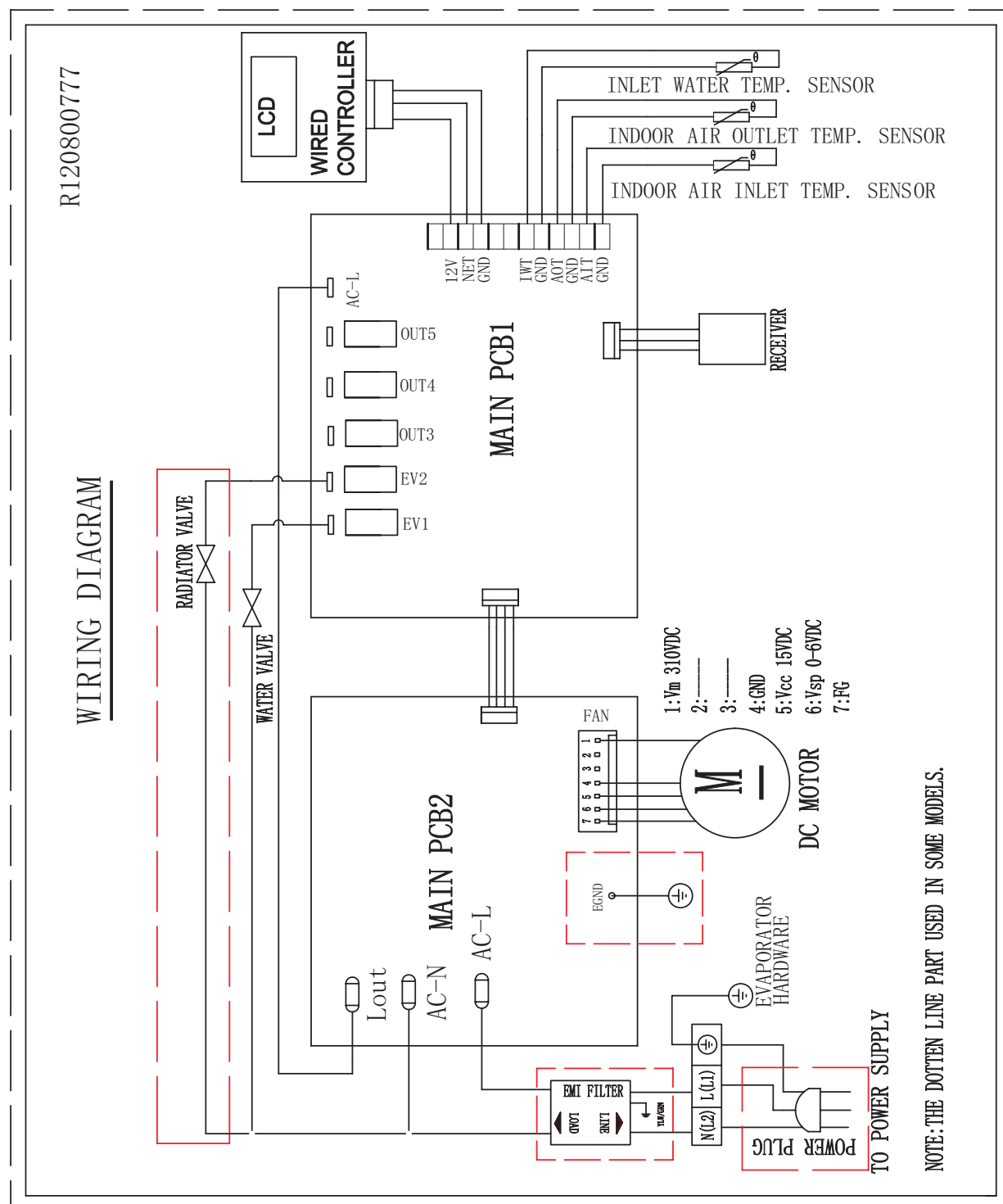
## 5 .Appendix

### 5.1 Exploded view

SN	Name	Quantity	SN	Name	Quantity
1	Back panel	1	22	Fixture plate of bearing support	1
	Back panel	1	23	Bearing support	1
	Back panel	1	24	Blower wheel	1
	Back panel	1		Blower wheel	1
2	Air outlet grille	1		Blower wheel	1
	Air outlet grille	1		Blower wheel	1
	Air outlet grille	1	25	Air deflector 1	1
	Air outlet grille	1		Air deflector 1	1
3	Air sponge 1	1		Air deflector 1	1
	Pore plate	1		Air deflector 1	1
	Air sponge 1	1	26	Filter1	1
	Pore plate	1	27	Filter2	1
	Air sponge 1	1		Filter2	2
	Pore plate	1		Filter2	3
	Air sponge 1	1		Filter2	4
	Pore plate	1	28	Front panel	1
4	Connection bar 2	1		Front panel	1
	Connection bar 2	1		Front panel	1
	Connection bar 2	1		Front panel	1
5	Connection bar 1	1	29	Air inlet grille	1
	Connection bar 1	1		Air inlet grille	1
	Connection bar 1	1		Air inlet grille	1
	Connection bar 1	1		Air inlet grille	1
6	Baffle plate 1	1	30	Left holder for heat exchanger	1
7	Air sponge 2	1	31	Right holder for heat exchanger	1
	Air sponge 2	1	32	Heat exchanger	1
	Air sponge 2	1		Heat exchanger	1
	Air sponge 2	1		Heat exchanger	1
8	Insulation in left panel	1	33	DC motor	1
9	Left inner panel	1	34	Fixture plate 1 of fan motor	1
10	Air deflector 4	1	35	Fixture plate 2 of fan motor	1
	Air deflector 4	1	36	Air deflector 5	1
	Air deflector 4	1	37	Right support plate 2	1
	Air deflector 4	1	38	Right support plate 1	1
11	Drain pan	1	39	Right inner panel	1
	Drain pan	1	40	Rubber plug	1
	Drain pan	1	41	Magnetic ring	1
	Drain pan	1	42	Input/output board	1
12	Water valve controller	1	43	Electric box cover	1
13	Water valve	1	44	Terminal block	0.25
14	Left outer panel	1	45	Eliminator	1
15	Insulation 2 inside left panel	1	46	Power board	1
16	Auxiliary drain pan	1	47	Remote controller board	1
17	Left support plate 1	1	48	Insulation 2 inside right panel	1
18	Air deflector 2	1	49	Inbuilt magnet	1
	Air deflector 2	1	50	Fixture plate 1 for magnet	1
	Air deflector 2	1	51	Wired controller	1
	Air deflector 2	1	52	Fixture plate 2 for magnet	1
19	Magnetic Catch	2	53	Insulation 1 inside right panel	1
20	Air deflector 3	1	54	Touch panel of wired controller	1
	Air deflector 3	1	55	Right outer panel	1
	Air deflector 3	1	56	Electric box	1
	Air deflector 3	1	57	Inlet water temp.sensor	1
21	Left support plate 2	1	58	Inlet/outlet air temp.sensor	2

## 5 .Appendix

### 5.2 Wiring diagram





## 5 .Appendix

### 5.3 Technical Data

Model		BM150*-*W	BM350*-*W	BM450*-*W	BM550*-*W
(a) Total Cooling Capacity	kw	0.75	1.5	2.2	3.1
Sensible Cooling Capacity	kw	0.61	1.25	1.9	2.6
Water Flow Rate	l/h	142	302	453	573
Water Pressure Drops	kPa	7	9	22	28
(b) Heating Capacity	kw	0.99	2	2.8	4.2
Water Flow Rate	l/h	142	302	453	573
Water Pressure Drops	kPa	6.5	7	18.5	24.5
(c) Heating Capacity	kw	1.55	3.1	4.6	6.3
Water Flow Rate	l/h	162	343	471	600
Water Pressure Drops	kPa	7	7.5	19	25.0
Coil Water Content	l	0.48	0.85	1.15	1.48
Maximum Operating Pressure	bar	10	10	10	10
Water Pipe Connector	inches	G1/2	G1/2	G1/2	G1/2
(d) Maximum Air Flow	m3/h	160	320	460	580
(d) Minimum Air Flow	m3/h	50	150	200	300
Power Supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
Maximum Running Current	A	0.115	0.16	0.21	0.24
Maximum Power Input	W	14	23	27	33
(e)Maximum Noise	dB(A)	44	44	44	44
(e)Minimum Noise	dB(A)	28	28	28	28
Length	mm	694	894	1094	1294
Height(without feet)	mm	580	580	580	580
Depth	mm	129	129	129	129
Net Weight	kg	16	22	28	34
Gross Weight	KG	18	24	30	36



## 5 .Appendix

### 5.3 Technical Data

Note:

- (a) Cooling: Water inlet/outlet 7/12 °C ; Room temperature DB/WB 27/19 °C .
- (b) Heating: Water inlet 50 °C , water flow rate as in cooling operation; Room temperature 20 °C .
- (c) Heating: Water inlet 70 °C , outlet 60 °C ; Room temperature 20 .
- (d) Air flow measured with clean filter.
- (e) Noise tested as per ISO 23741/2 and ISO 7779:2001

(f) Model description : BM 150 \* - \*W


water valve types:  
NW = without valve ;  
2W = 2-way valve ;  
3W = 3-way valve ;

Serial code: A, B, C

Air flow

Slim fan coil unit

The specification are subject to change without prior notice. For actual specifications of unit, please refer to the stickers on the unit.



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V1.0